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MUNICIPAL AFFAIRS
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STATISTICS

RE: ELECTRICAL INCIDENTS IN ALBERTA

2000 04 01 to 2001 03 31

Regulations under the Safety Codes Act require that all electrical accidents and power line contacts be reported to the Technical Administrator. Alberta Municipal Affairs has compiled a summary report of those incidents reported between April 1, 2000 and March 31, 2001. Organizations in the electrical industry may use this information for promoting public awareness of electrical safety risks to reduce electrical incidents.

A total of 474 incidents were reported: 386 involving overhead power lines, 66 involving underground power lines and 22 involving other types of electrical installations or equipment. Of those, 2 fatalities and 18 injuries were recorded.

This report presents the information in a series of tables, text, and charts:

(1) **Injury Incidents** – Pages 2, 3 and 4 summarize fatal and non-fatal injury incidents reported in the period indicated. The table on page 2 outlines the persons, voltages, and equipment involved in the incidents. A brief description of injury incidents, in chronological order, is provided on pages 3 and 4.

(2) **Power Line Contacts** – Pages 5, 6 and 7 summarize the power line contacts reported. The table on page 5 shows different types of power line contacts and the number of fatal and non-fatal injuries incurred for each type of contact. A table and two charts, on pages 6 and 7, compare historical information regarding power line contacts with current statistics.

Since not all incident occurrences are reported, this report is not an accurate accounting of all the incidents that occurred in Alberta. It does serve as an approximation of the total number of incidents that may have occurred, and provides a sample of the types of accidents that happened.

INJURY INCIDENTS REPORTED
1999 04 01 to 2000 03 31

FATAL (F)
NON-FATAL (N)

1. PERSONS INVOLVED

A. Performing electrical work	F	N
1. Qualified electrical worker		4
2. Qualified power electrician/lineman		2
3. Non-qualified person	1	3

B. Not performing electrical work	F	N
1. Male	1	8
2. Female		1
3. Child		

2. VOLTAGES INVOLVED

A. Systems or equipment (not power line contacts)	F	N
1. 750 volts or less	1	9
2. Over 750 volts		2

B. Contact with power lines (not included in A)	F	N
1. 750 volts or less		
2. Over 750 volts	1	7

3. SYSTEMS OR EQUIPMENT INVOLVED

A. Interior wiring systems	F	N
1. Service/distribution equipment		2
2. Motor control equipment		1
3. Switches, fixtures, etc.		
4. Test equipment		1
5. General wiring/conductors	1	2
6. Other equipment		

B. Line construction or maintenance	F	N
1. Overhead systems (poles, lines, etc.)	1	3
2. Substations and transformers		
3. Underground systems		
4. Other		

C. Utilization equipment	F	N
1. Household appliances		
2. Commercial/industrial equipment		1
3. Portable power tools		
4. Extension cords		3
5. Welding machines/motors		1
6. Mobile homes and trailers		
7. Signs		
8. Other		

D. Non-electrical equipment	F	N
1. Cranes/booms/pickers		3
2. Ladders/scaffolds		1
3. Drilling rig equipment		
4. Farm equipment		
5. Moving buildings		
6. Objects (pipe, antennae, etc.)		
7. Excavating equipment		
8. Vehicles (high loads, truck boxes, etc.)		
9. Other		

SUMMARY OF INJURY INCIDENTS

Fatal Injuries

July/2000 1. An elderly man was found dead on his kitchen floor. He was apparently working on an energized kitchen receptacle.

Oct./2000 2. A truck driver was electrocuted when he left his truck after contacting a 25 K Volt overhead power line. The truck had burst into flames and it is thought the driver was trying to escape the smoke and heat.

Non-Fatal Injuries

April/2000 1. A millwright received burns to the wrist when his wristwatch contacted an electrical source while working on electric welding equipment.

2. A helper received burns on both hands while handling a load from a picker truck when the picker boom contacted a 25 K Volt overhead power line.

3. An operator at a pulp mill received a shock when handling a damaged power cord.

June/2000 4. An oilfield operator received a broken wrist and bruised chest after being struck by the panel door of a pumpjack controller blown open due to an explosion within the panel.

Aug./2000 5. An electrician received burns to his left hand after contacting a 5 K Volt bus bar while working on energized switchgear.

Sept./2000 6. A worker received burns to his hand and foot when getting out of his truck after scaffolding he was towing contacted a 15 K Volt overhead power line.

7. A worker installing an anchor received electrical burns to fingers and shin when the boom positioning the anchor contacted a 25 K Volt power line.

Nov./2000 8. A millwright received a shock after contacting energized terminals of a 480 Volt space heater while removing fasteners and covers on a piece of generating equipment.

9. An electrician received multiple 3rd degree burns to his right hand, forearm, and elbow and bruising to his left elbow after contacting the tie bus on the high resistance grounding system within a switchgear.

Dec./2000 10. An electrical worker received electrical burns to his face from an electrical flash.

Jan./2000 11. A millwright received an electrical shock after stepping on a nail, protruding from a piece of plywood, that had been driven through an energized 480 Volt power cable.

12. A worker received an electrical shock while plugging in an extension cord. The metal shell of the male end had become energized when it was forcibly plugged into a receptacle of a different rating and configuration.

Feb./2000 13. Two persons received a shock from the pipe they were holding after a side boom used to move the pipe contacted an overhead power line.

14. A relay technician, in the course of testing utility overcurrent relays, received an electrical shock when he touched both leads of a "Relay Test Set", one with each hand.

March/2000 15. An electrician received a shock while working on an energized receptacle.

16. A person received an electrical shock when she tried to close a pole-mounted utility switch with a homemade "switch stick".

17. A power lineman received 1st and 2nd degree burns to the face from an electrical flash fire resulting from a short circuit between 2 phases of a 7260 Volt circuit.

Livestock

July/2000 1. A calf was electrocuted after contacting a power line downed by a windstorm.

REPORTED ELECTRICAL POWER LINE CONTACTS
2000 04 01 to 2001 03 31

TYPE OF CONTACT OR DAMAGE	# OF LINE CONTACTS	NON-FATAL INJURIES	FATAL INJURIES
Overhead Utility Systems			
Vehicle-mounted equipment (booms, hoists, cranes, etc.)	35	4	
Trucks with raised boxes and vehicles transporting high loads	68		1
Excavating or earth moving vehicles	56		
Farm implements	46		
Relocating structures (grain bins)	7		
Vehicles out of control	105		
Aircraft, parachutes, kites, etc.	5		
Falling, brushing or trimming trees a) Utility tree trimmers/workers	1		
b) Others	41		
Trees due to weather related causes	6		
Other inadvertent contacts	16	3	
Total	**386**	**7**	**1**
Underground Utility Systems			
Excavating equipment	51		
Vehicles hitting transformers, pedestals, etc.	10		
Others	5		
Total	**66**		

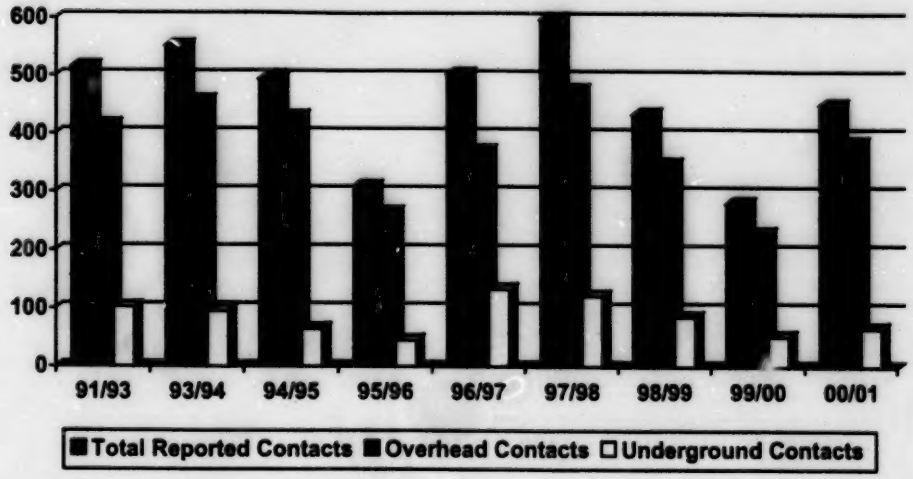
POWER LINES CONTACTS HISTORICAL SUMMARY

	92/93	93/94	94/95	95/96	96/97	97/98	98/99	99/00	00/01
Overhead (O/H) contacts	414	457	430	265	371	477	349	230	386
Underground (U/G) contacts	102	95	65	45	133	122	86	52	66
Total Reported Contacts	**516**	**552**	**495**	**310**	**504**	**599**	**435**	**282**	**452**

Fatalities (O/H contacts)	4	3	0	0	1	7	1	1	1
Fatalities (U/G contacts)	0	0	0	0	0	0	0	0	0
Total Reported Fatalities	**4**	**3**	**0**	**0**	**1**	**7**	**1**	**1**	**1**

Injuries (O/H contacts)	11	15	7	2	6	14	15	10	7
Injuries (U/G contacts)	3	0	0	0	0	2	3	0	0
Total Reported Non-Fatal Injuries	**14**	**15**	**7**	**2**	**6**	**16**	**18**	**10**	**7**

Power Line Contacts Historical Summary
April 1 to March 31 of the Following Year



Power Line Contacts Injuries History
April 1 to March 31 of the Following Year